



# **ISO 9000**

## **Lesson 2 Overview**

**Prepared for NASA  
by OPM and BDM Federal, Inc.**

**August 1997**



# Overview of ISO 9000

- **NASA Policies**
- **ISO Standards**
- **Quality System Definitions**



# Historical Background

- **European (EU) - Treaty of Rome**
  - One Intent: Abolish Tariffs and Quotas
  - Six Members
    - France, West Germany, Italy, Luxembourg, the Netherlands, Belgium
- **Responded to Growing Economic Domination by Asian Countries with Renewed Effort to Unite Europe Economically (1985)**
- **ISO Standards Published in 1987**
- **American Representation by ANSI (and ASQ)**
- **American Version Q9000 Series**



# **U.S. Move to ISO 9000**

- **NASA and Other Government Agencies Movement toward ISO 9000**
- **Several Large Companies in U.S. Requiring Supplier to Be ISO Certified**
- **“Big Three” U.S. Automotive Manufacturers - QS 9000**
- **General Intent: ISO Audits Will Replace Most Auditing Performed by Customers**



# **NASA Policies**

- **NASA Office of Safety and Mission Assurance Issued Directive Recommending Adoption of ISO 9000 (February 1994)**
- **NMI 1270.3 Approved by NASA (December 1995)**
- **Directive Requiring MSFC, JSC, and SSC to Become ISO Certified by April 1998; HQ and Remaining Centers by September 1999 (November 1996)**
- **White Sands Test Facility Certified (October 1995); First Federal Facility to Be Certified**



# **Expected Benefits to NASA**

- **Improve Customer Relations**
- **Replace Reactive Attitude with Preventive Attitude**
- **Develop Well Documented Management System Consistent throughout Agency**
- **Minimize Duplication of Effort**
- **Provide Better Trained and Skilled Workforce with Improved Efficiency and Effectiveness**
- **Enhance Ability to Compete**
- **Advance NASA's Implementation of Federal Reform Initiatives**
- **Establish NASA as Preeminent Federal Agency for Quality Improvement**



# Responsibilities

## **The Administrator's November 13, 1996 Directive Requires the Following:**

- **Center Directors Will Appoint a Management Representative for the Following Purposes:**
  - **Ensure Quality System Requirements Are**
    - **Established**
    - **Implemented**
    - **Maintained**
  - **Report on Performance of Quality System**
- **Headquarters Office of Safety and Mission Assurance Responsible for the Following:**
  - **Facilitating ISO 9001 Transition**
  - **Reporting Agency Performance to HQ Senior Management**



# Overview of the Standards

- **Basic Documents**
  - ISO 9000
  - ISO 9001
  - ISO 9002
  - ISO 9003
  - ISO 9004
- **Several Other Supporting Documents**
- **Two Types:**
  - Guidance (Descriptive)
  - Conformance or Requirements (Prescriptive)





# Common Terms

- **Organization**
- **Subcontractor-Supplier-Customer**
- **ISO Verbs: Shall, Should**
- **Processed Material**
- **Services**
- **Hardware**
- **Software**
- **Quality**
- **Quality System**